

**Amendments to the Specification:**

Please replace the paragraph from Column 1, line 56 – column 2, line 10 with the following amended paragraph:

--The scalpel of the invention provides practitioners with a scalpel that has the feel and weighting of a traditional reusable scalpel with the benefits of a fresh blade and a shield that substantially prevents inadvertent access to the sharp blade and that is intuitively movable from the distal position where the blade is protected to the proximal position to expose the blade. The shield of the scalpel of the invention is releasable from the proximal position by the practitioner's direct downward pressure on a digital activation section. The shield includes ergonomic grips to direct the practitioner's hand to a position for mounting the cartridge on the handle where it is unlikely that there will be inadvertent release of the shield for movement from the [proximal] distal position where the blade is protected to the [distal] proximal position where the blade is exposed. The replaceable cartridge that includes the blade allows the personnel charged with arming and disarming the scalpel to handle only a protected blade and substantially prevents operating room personnel from being exposed to the blade during set-ups and transfers of equipment during procedures and substantially prevents exposures to used blades during disarming and clean-up procedures. --

Please replace the paragraph at Column 2, lines 44-45 with the following:

--FIG. 6 shows a perspective view of an alternative embodiment of the blade holder with the blade attached; --

Please replace the paragraph at column 2, lines 60-62 with the following:

--FIG. 13 is a perspective view in [part] partial section of an alternative handle embodiment having a button for locking the shield in position over the blade;--

Please replace the paragraph at column 3, lines 5-7 with the following:

--FIG. 18 is a partial perspective view of the cartridge being mounted to the handle [of] to form the scalpel of the invention;--

Please replace the paragraph at column 3, lines 19-20 with the following:

--FIG. 23 is a partial exploded perspective view showing the removal of the cartridge from the handle; [and]--

Please replace the paragraph at column 3, lines 21-22 with the following:

--FIG. 24 is a perspective view of the blade holder of the invention[.];--

Please replace the paragraph at column 4, lines 29-40 with the following:

--Turning in detail to the FIGS. 1-15, the surgical scalpel 10 is first shown in FIG. 1 with the blade 12 secured to the blade holder 20. The scalpel 10 is gripped by the [hand] handle 50 which has a preferably contoured elongated grip portion 52. As is shown in FIGS. 2a and 2b, adjacent the front end of the blade holder 20 are two tabs 22 and 24 for securing the blade 12 to the blade holder 20 by inter locking with respective openings on the blade 12. Adjacent the back end of the blade holder 20 is the attachment slot 26 shown as a female end connection. Channels 28 are positioned longitudinally on opposite sides of the blade holder 20 along a channel section 30 of the blade holder 20.--

Please replace the paragraph at column 4, lines 41-47 with the following:

--A hook 32 is cantilevered from the back end of the blade holder 20. The hook 32 can resiliently flex upwardly and downwardly to engage the handle 50. The cantilevered end of the hook 32 has an inclined aft surface 34 and a protrusion 36 which is adapted to engage a complementary shaped [grooved 50] groove 60 on the handle 50 when the blade holder 20 mates with the handle 50.--

Please replace the paragraph at column 5, lines 1-12 with the following:

--The sleeve 70 preferably has a digit engaging portion 78 adjacent to the arch 74 having a series of ribs forming a thumb rest. [t]The digit engaging portion 78 improves the surgeon's "feel" for the sleeve 70 when the sleeve 70 slides along the guide channels 28 and 54 by hand or thumb pressure. FIG. 5a shows an assembled scalpel 10 with the sleeve 70 in a forward position to cover [of sheath] the blade 12. The forward movement of the sleeve 70 is guided by the guide flanges 72 that travel along the guide channels 28

and 54. With the sleeve 70 moved fully forward, the radiused surface 76 contacts the hook 32 to stop additional forward movement.--

Please replace the paragraph at column 8, lines 30-53 with the following:

--Blade holder 320 may be formed from thermoplastic materials such as polypropylene, polyethylene, polycarbonate, polysulfone, polyacetal, polyamide and the like. Shield 338 may be formed from thermoplastic materials such as polypropylene, polyethylene, polycarbonate, polyacetal, and polyamide and the like. For particular applications shield 338 may be formed from a substantially transparent material. Handle 312 may be formed from a material such as machined metal, formed powdered metal and thermoplastic or thermoset materials. In the preferred application, shield 338 and blade holder 320 are formed from thermoplastic materials such as polypropylene and polycarbonate with a stainless steel blade to form the single-use cartridge 318. [fhandle] Handle 312 preferably is formed from machined metal or formed powdered metal to provide a durable reusable device that provides the practitioners with the same "feel" and "heft" that they are accustomed to with the current reusable handles and with removable single-use bare blades. Handle 312 preferably has a surface treatment, here illustrated as knurling 313, to improve the practitioner's ability to securely grip the scalpel. Other surface treatments including roughening, grooving, checkering and the like may be preferred for particular applications and are considered within the scope of the invention.--

Please replace the paragraph at column 9, line 56 – column 10, line 20:

--Shield 430 includes a cantilever 432 with a digital activation section 434 projecting upwardly from a top surface 435 of the shield. When cartridge 418 is mounted on handle 412, a practitioner may apply digital pressure to digital activation section 434 sufficient to downwardly deflect cantilever 432 and release shield 430 for movement between the proximal position and the distal position. Scalpel 410 has a groove 436 that extends from the blade holder 420 from a distal terminus 438 onto handle 412 to a proximal terminus 440 on one side of the scalpel. Preferably, scalpel 410 has a groove 436 on each of a first side 437 and a second side 439, each with distal termina 438 on blade holder 420 and proximal termina 440 on handle 412. Cantilever 432 further

includes at least one boss 442, preferably two bosses 442 disposed to engage each of grooves 436. Each terminus of groove 436 is an upward enlargement disposed to engage bosses 442 when shield 430 is positioned in either the proximal or distal positions. When bosses 442 are engaged in the terminus, shield 430 is substantially prevented from movement. When the practitioner applies sufficient downward force to digital application section 434 to deflect cantilever 432, bosses 442 are no longer engaged with the upward enlargements at the [terminal] terminal thereby allowing the practitioner to selectively move shield 430 between the proximal and distal positions as desired. Bosses 442 track in grooves 436 to stabilize shield 430 during the movement between positions, and when a terminus is reached, bosses 442 preferably serve to provide a practitioner perceptible "snap" as the bosses engage the enlargement and allow cantilever 432 to return to the rest position to assist the practitioner in recognition of the completion of desired movement of the shield.--

Please replace the paragraph at column 10, line 46 – column 11, line 13:

--Shield 430 preferably includes a deflectable tab 450, best seen in FIGS. 27, 28, 32 and 32A, with an inwardly projecting lug 452 that is disposed to engage a seat 454 in blade holder 420. Seat 454 is best seen in FIGS. 26, 33 and 35B. During initial assembly of cartridge 418, preferred blade 426 with an aperture 456 is fixedly attached to an outward protuberance 458 on blade holder 420 by fitting aperture 456 over protuberance 458 so that blade 426 is substantially rigid with respect to blade holder 420. Suitable fixed attachments of blade 426 to blade holder 420 are formed by heat staking the projection onto the aperture, adhesive bonding or the like. Shield 430 has a proximal end 460 and a distal end 462. The assembly then includes substantially axially aligning proximal end 460 of the shield with distal end 424 of the blade holder and proximally advancing the shield onto the blade holder to form cartridge as shown in FIG. 25. As is best seen in FIGS. 35A, 35B, 35C and 35D grooves 436 have a first depth "a" between distal terminus 438 on the blade holder and a shoulder 464 and a second depth "b" between [distal terminus 438] the shoulder 464 and distal end 424 of the blade holder. Second depth "b" is less than first depth "a" thereby to form a shoulder 464 at the intersection of depths "a" and "b". As shield 430 is proximally advanced onto blade

holder 420, bosses 442 engage grooves 436 at second depth "b" and deflect. As shield 430 is further proximally advanced onto the blade holder, bosses 442 engage deeper first depth "a" at distal termina 438 and are substantially prevented from returning to second depth "b" region by shoulder 464 thereby substantially preventing distal movement of shield 430 with respect to blade holder 420. Tab 450 with inwardly projecting lug 452 is disposed to engage seat 454 in blade holder 420 when bosses 442 are in distal termina 438, thus substantially preventing further movement of shield 430 with respect to blade holder 420 until cartridge 418 is mounted onto handle 412.--

Please replace the paragraph at column 11, lines 14-28:

--Preferably, shield 430 is substantially prevented from movement with respect to blade holder 420 during mounting of cartridge 418 onto handle 412 even if the practitioner unintentionally applies sufficient pressure to digital activation surface 434 to deflect cantilever 432. [Proximal end 414] Distal end 416 of handle 412 is preferably disposed to engage at least one of bosses 442 as cartridge 418 is proximally advanced onto handle 412 when cantilever 432 is deflected downwardly. Additionally if the practitioner were to inadvertently apply pressure to digit activation surface 434 after cartridge 418 is partially properly advanced onto handle 412, preferred handle 412 further includes a recess 466 disposed on a top surface 467 of handle 412 to engage at least one of bosses 442 to function as a false stop and substantially prevent further advancement of cartridge 418 onto handle 412.--

Please replace the paragraph at column 13, lines 21-55 with the following:

Shield 530 includes a first cantilever 532 with a digital activation section 534 projecting upwardly from a top surface 535 of the shield. When cartridge 518 is mounted on handle 512, a practitioner may apply digital pressure to digital activation section 534 sufficient to downwardly deflect cantilever 532 and release shield 530 for movement between the proximal position and the distal position. Scalpel 510 has a groove 536 that extends from the blade holder 520 from a distal terminus 538 onto handle 512 to a proximal terminus 540 on one side of the scalpel. Preferably, scalpel 510 has a groove 536 on each of a first side 537 and a second side 539, each with distal termina 538 on

blade holder 520 and proximal termina 540 on handle 512. Cantilever 532 further includes at least one boss 542, preferably two bosses 542, best seen in FIG. 39, disposed to engage each of grooves 536. Each termina of groove 536 is preferably an upward enlargement disposed to engage bosses 542 when shield 530 is positioned in either the proximal or distal positions. When bosses 542 are engaged in the termina, shield 530 is substantially prevented from movement. When the practitioner applies sufficient downward force to digital application section 534 to deflect cantilever 532, bosses 542 are no longer engaged with the upward enlargements at the termina, thereby allowing the practitioner to selectively move shield 530 between the proximal and distal positions as desired. Bosses 542 track in grooves 536 to stabilize shield 530 during the movement between positions, and when a terminus is reached, bosses 542 preferably serve to provide a practitioner perceptible "snap" as the bosses engage the enlargement and allow cantilever 432 to return to the rest position to assist the practitioner in recognition of the completion of desired movement of the shield. Preferably, termina 538 and 540 each include a roof portion 541 that substantially prevents boss 542 from upward disengagement from the termina. Adjacent to roof portion 541 are ramped end portions 541b which define the ends of the cut away portion 541a. Roof portion 541 defines the bottom of the cut away portion 541a.--

Please replace the paragraph at column 14, lines 1-33 with the following:

--In this embodiment, preferred first cantilever 532 extends distally from proximal end 560 of shield 530. Referring to FIGS. 40a and 40b, which are schematic representations of a portion of shield 430 of the embodiment shown in FIGS. 25-36c, and FIGS. 40c and d, that are schematic representations of a portion of shield 530 as illustrated in FIGS. 37-39, the reason for the preferred configuration of cantilever 532 is seen. In the embodiment of shield 430 with cantilever 432, if a practitioner inadvertently applies proximal force  $F_i$  to the [distal] digital application section 434 during the mounting of cartridge 418 onto handle 412, resultant moment  $M$  is seen in FIG. 40b with a concomitant resultant to move boss 432 downwardly from distal termina 438 thereby potentially, if the force is sufficient, inadvertently releasing shield 430 for proximal movement to expose blade 426. Referring now to FIGS. 40c and 40d, illustrating the

preferred configuration of cantilever 532, it is apparent that the application of the same proximal force  $F_i$  to digital application section 534 results in a concomitant resultant to move boss 532 upwardly in distal termina 538. Diagrams comparing these resultants are seen in FIGS. 40b and 40d. The upward resultant on boss 532 and the downward resultant on boss 432 are shown in FIGS. 40d and 40b respectively. The placement of the effective hinges  $H_{400}$  and  $H_{500}$  of the cantilevers 432 and 532 provide the direction of the resultant action on the bosses 432 and 532. When the preferred cantilever 532 configuration is coupled with the distal upward pitch of surface 590 and proximal upward pitch of surface 591 in distal upward termina 538 in the preferred scalpel 510, the probability of an inadvertent release of shield 530 for proximal movement during mounting of cartridge 518 onto handle 512 is substantially reduced.--

Please replace the paragraph at column 14, lines 46-52 with the following:

--In FIGS. 38b and 38c, a more preferred configuration for digital activation section 534a is illustrated. This more preferred configuration reduces any inadvertent force applied by the practitioner to cantilever 532 during mounting cartridge 518 to handle 512, while facilitating the [intention] intentional movement of shield 530 to the proximal position to expose blade 526 for its intended use.--

Please replace the paragraph on column 15, line 66 – column 16, line 34 with the following:

--Cartridge 518 is releasably mounted to handle 512 by engaging a downward projection 580 on handle 512 with a pocket 582 on a flexible beam portion 584 that projects proximally from blade holder 520. To remove cartridge 518 from handle 512, cartridge 518 is distally advanced from handle 512. Preferably, shield 530 substantially surrounds blade holder 520 and substantially prevents inadvertent access to blade 526 when shield 530 is in the distal position. When shield 530 is proximal, blade 526 is exposed for use, bosses 542 are disposed in proximal termina 540 and shield 530 surrounds at least a portion of handle 512. Since shield 530 substantially surrounds at least a portion of the handle when it is in the proximal p position, beam 584 is substantially prevented from flexing downwardly to release projection 580 from pocket 582 by the shield, thus

substantially preventing cartridge 418 from being dismounted from handle 512 when the blade is exposed. Additionally, if a practitioner inadvertently applies distal force to attempt to move the shield to the distal position, the presence of bosses 542 in proximal termina 540 substantially prevent movement of shield 530 to the distal position. To move shield 530 to the distal position, the practitioner must apply sufficient force to the digital activation surface 534 to downwardly deflect cantilever 532 and release bosses 542 from the proximal termina 540. If a practitioner grasps shield 530 and attempts to remove cartridge 418 from handle 412 after shield 430 is released from the proximal position, but before shield 530 is fully seated in the distal position and blade 526 is substantially protected from inadvertent access, shield 530 substantially prevents the disengagement of pocket 582 from projection 580 until the shield is distally advanced to substantially protect blade 526 from inadvertent access. Then, as handle 512 is separated from cartridge 518, prong 578 is disengaged from tab 550 thereby allowing lug 552 to engage seat 554 and substantially prevent movement of shield 530 with respect to blade holder 520.--



### **Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listing, of the claims in the application.

#### **Listing of the Claims**

1. (previously submitted) A surgical scalpel comprising:  
an elongate handle defining a longitudinal axis and having a proximal end and a distal end;  
a cartridge removably mounted to said handle, said cartridge including a blade holder with a proximal end and a distal end;  
a blade fixedly attached to said blade holder disposed so that said blade projects distally outwardly when said cartridge is mounted to said handle;  
said cartridge including a shield having proximal end, a distal end and a bottom, said shield being mounted onto said blade holder and shield being slidably movable between a distal position wherein said shield substantially prevents inadvertent access to said blade and a proximal position wherein said shield substantially surrounds a portion of said handle and said blade is exposed for use, said cartridge including means for releasably mounting said cartridge to said handle and for substantially preventing said movement of said shield with respect to said blade holder unless said cartridge is mounted on said handle, said cartridge further including at least one means for substantially preventing an inadvertent movement of said shield to said proximal position thereby to expose said blade as said cartridge is being mounted to said handle.
2. (previously submitted) The surgical scalpel of claim 1 wherein a first means for substantially preventing said inadvertent movement of said shield to said proximal position comprises a first cantilever on said shield extending distally from said proximal end of said shield, said first cantilever having a digital activation section projecting upwardly from a top surface of said shield.
3. (previously submitted) The surgical scalpel of claim 2 wherein said first means for preventing said movement of said shield with respect to said blade holder further

comprises said handle and said blade holder having at least one groove having a distal terminus on said blade holder and a proximal terminus on said handle, said groove extending proximally from said blade holder onto at least a distal portion of said handle, said at least one groove having an upward enlargement at said distal terminus and an upward enlargement at said proximal terminus.

4. (previously submitted) The surgical scalpel of claim 3 wherein said first means for preventing said movement of said shield between said distal position and said proximal position further includes at least one inwardly projecting boss disposed on first cantilever to engage said at least one groove, said boss projecting into said distal terminus when said shield is in said distal position, said boss projecting into said proximal terminus when said shield is in said proximal position, said shield thereby being normally latched in one of said proximal and distal positions unless said first cantilever is downwardly deflected thereby disengaging said boss from said terminus and allowing said slidable movement of said shield between said proximal position and said distal position.

5. (previously submitted) The scalpel of claim 4 further including means for substantially preventing said cartridge from being mounted on said handle when said first cantilever is deflected downwardly, thereby substantially preventing inadvertent exposure of said blade during mounting said cartridge onto said handle.

6. (previously submitted) The scalpel of claim 5 wherein said means for substantially preventing said cartridge from being mounted on said handle when said first cantilever is being deflected downwardly includes said distal end of said handle being disposed to engage said at least one boss on said cantilever when said first cantilever is downwardly deflected and said cartridge is being mounted to said handle thereby to substantially prevent said cartridge from being mounted on said handle.

7. (previously submitted) The scalpel of claim 4 further including means for substantially preventing movement of said shield with respect to said blade holder during mounting

said cartridge on said handle when said cartridge is partially properly mounted on said handle and said cantilever is downwardly deflected.

8. (previously submitted) The scalpel of claim 7 wherein said means for substantially preventing movement of said shield when said cartridge is partially properly mounted and said cantilever is downwardly deflected includes a recess on said handle disposed distally to said groove to function as a false stop and engage said boss on said cantilever when said cantilever is deflected downwardly substantially to prevent proximal movement of said shield before said cartridge is fully mounted on said handle and thereby to prevent said cartridge from being fully mounted on said handle and prevent movement of said shield from said distal position to said proximal position until said downward deflection of said cantilever ceases.

9. (previously submitted) The surgical scalpel of claim 3 wherein said distal upward terminus of said groove in said blade holder further includes a distal surface and a proximal surface each having an upwardmost edge and a lower edge, and wherein said distal upwardmost edge is more distal than said distal lower edge, thereby causing a distal upward pitch to said distal surface, and said proximal upward most edge is more proximal than said proximal lower edge, thereby causing a proximal upward pitch to said proximal surface, to substantially retain said boss in said upward distal terminus until the practitioner applies sufficient direct downward force to said digital activation section to downwardly deflect said first cantilever.

10. (previously submitted) The surgical scalpel of claim 9 wherein said proximal terminus and said distal terminus of said groove each further include a roof portion sufficient to substantially prevent upward disengagement of said boss from said termina.

11. (previously submitted) The surgical scalpel of claim 10 wherein said blade holder and said handle have one groove on one side and another groove on an opposite side thereof.

12. (previously submitted) The surgical scalpel of claim 11 wherein said first cantilever has one boss disposed to engage said one groove on one side of said blade holder and said handle and another boss disposed to engage said second groove on said opposite side of said blade holder and said handle.

13. (previously submitted) The surgical scalpel of claim 1 wherein a second means for substantially preventing said proximal movement of said shield as said cartridge is mounted onto said handle comprises a second cantilever on said bottom of said shield, said second cantilever having a distal fixed end and a free proximal end so that if the practitioner inadvertently applies a force to said bottom of said shield as said cartridge is mounted to said handle, said second cantilever is deflected upwardly to engage said blade holder and substantially prevent inadvertent proximal movement of said shield to expose said blade.

14. (previously submitted) The surgical scalpel of claim 1 wherein a third means for substantially preventing inadvertent proximal movement of said shield as said cartridge is mounted to said handle comprises a finger grip portion on at least one of an outside surface of said shield, said finger grip portion being shaped to facilitate the practitioner's grip for mounting the cartridge onto said handle, thereby substantially preventing the practitioner's inadvertent contact with said digital activation section sufficient to deflect said first cantilever.

15. (previously submitted) The scalpel of claim 1 wherein said means for releasably mounting said cartridge on said handle includes a downward projection on said handle and a flexible beam projecting proximally from said blade holder, said beam having a pocket therein for releasably engaging said downward projection on said handle to retain releasably said cartridge on said handle.

16. (previously submitted) The scalpel of claim 15 wherein said means for releasably mounting said cartridge on said handle further includes means for substantially

preventing said cartridge from being dismounted from said handle unless said shield is in said distal position.

17. (previously submitted) The scalpel of claim 16 wherein said means for substantially preventing said cartridge from being dismounted from said handle unless said shield is in said distal position comprises said shield being disposed to prevent substantially said proximally projecting beam on said blade holder from being downwardly deflected and thereby to disengage said downward projection on said handle from said pocket on said beam unless said shield is in said distal position, thereby substantially preventing said pocket in said beam from disengaging from said downward projection on said handle and to retain said cartridge on said handle.

18. (previously submitted) The scalpel of claim 1 wherein said means to substantially prevent movement of said shield with respect to said blade holder unless said cartridge is mounted on said handle includes a deflectable tab on a side of said shield having an inwardly projecting lug thereon disposed to engage a seat in said blade holder when said shield is in said distal position and said cartridge is not mounted on said handle thereby substantially preventing movement of said shield with respect to said blade holder.

19. (previously submitted) The scalpel of claim 18 wherein said means for substantially preventing movement of said shield with respect to said blade holder unless said cartridge is mounted on said handle further comprises a distal prong on said handle disposed to engage said tab on said shield when said cartridge is mounted on said handle thereby to disengage said lug from said seat on said blade holder and to permit movement of said shield with respect to said blade holder.

20. (previously submitted) The scalpel of claim 19 wherein said distal prong on said handle disposed to engage said tab on said shield further comprises a distal end having a chamfered surface to facilitate said disengagement of said lug from said seat.

21. (previously submitted) The surgical scalpel of claim 1 wherein said blade is fixedly attached to said outward projection of said blade holder by a bonding selected from the group consisting of heat staking, mechanical cold forming and adhesive bonding.

22. (previously submitted) The surgical scalpel of claim 1 wherein said blade holder is formed from a thermoplastic material selected from the group consisting of polypropylene, polyethylene, polycarbonate, polysulfone, polyacetal and polyamide.

23. (previously submitted) The surgical scalpel of claim 1 wherein said shield is formed from a thermoplastic material selected from the group consisting of polypropylene, polyethylene, polycarbonate, polyacetal, and polyamide.

24. (previously submitted) The surgical scalpel of claim 1 wherein said shield is formed from a substantially transparent material.

25. (previously submitted) The surgical scalpel of claim 1 wherein said handle is formed from a material selected from the group consisting of machined metal, formed powdered metal and thermoplastic materials.

26. (previously submitted) A cartridge useful for releasably mounting on a handle to form a scalpel comprises:

- a blade holder with a proximal end and a distal end;

- a blade fixedly attached to said blade holder disposed so that said blade projects distally outwardly when said cartridge is mounted to a handle;

- said cartridge including a shield slidably mounted onto said blade holder, said shield being slidably movable between a distal position wherein said shield substantially prevents inadvertent access to said blade and a proximal position wherein said shield substantially surrounds a portion of the handle and said blade is exposed for use, said cartridge further including means to substantially prevent said movement of said shield to said proximal position unless said cartridge is mounted on the handle, to prevent movement of said shield between said proximal position and said distal position, to

substantially prevent a dismounting of said cartridge from the handle unless said shield is in said distal position, and means to substantially prevent inadvertent movement of said shield from said proximal position to said distal position as said cartridge is being mounted on said handle.

27. (previously submitted) The cartridge of claim 26 being placed in a sealed package formed from materials substantially resistant to the passage of microorganisms and exposed to conditions that render any microorganisms inside said package substantially nonviable.

28. (previously submitted) A method for assembling a surgical scalpel having a shielded blade comprises:

- providing an elongate handle defining a longitudinal axis and having a proximal end and a distal end;

- providing a cartridge including a blade holder with a proximal end and a distal end, said cartridge including a blade fixedly attached to said blade holder disposed so that said blade projects distally outwardly when said cartridge is mounted to said handle, said cartridge further including a shield slidably mounted onto said blade holder, said shield being slidably movable between a distal position wherein said shield substantially prevents inadvertent access to said blade and a proximal position wherein said shield substantially surrounds a portion of said handle and said blade is exposed for use, said cartridge further including means to substantially prevent said movement of said shield to said proximal position unless said cartridge is mounted on said handle, to prevent movement of said shield between said proximal position and said distal position and to prevent substantially a dismounting of said cartridge from the handle unless said shield is in said distal position;

- gripping said cartridge at said finger grip portion;

- positioning said cartridge so that said proximal end of said cartridge is in substantial axial alignment with said distal end of said handle;

- advancing said cartridge proximally onto said distal end of said handle until said cartridge is fully seated thereby forming said scalpel.

29. (previously submitted) The method of claim 23 further comprising a method for removing said cartridge from said handle grasping said shield at said finger grip portion; and

applying a distal substantially axial force to said shield sufficient to overcome a resistance to deflect a beam having a pocket on said blade holder and disengage a downward projection on said handle from said pocket on said beam, thereby removing said cartridge from said handle, said distal force serving to move said shield to said distal position in the event that the shield is not in the distal position and allowing said beam to deflect.

30. (amended) A cartridge that may be mounted on a handle to form a scalpel, comprising:

a blade holder with a proximal end, a distal end and an external surface;

a blade attached to said blade holder; and

a shield slidably mounted about said blade holder so as to be disposed about the external surface of the blade holder wherein the shield is movable between a distal position shielding the blade and a proximal position exposing the blade for use[.];

wherein the shield includes means to substantially prevent proximal movement of the shield with respect to the blade holder unless the cartridge is mounted to a handle.

31. (previously submitted) The cartridge of claim 30 wherein the cartridge includes a means for releasably mounting said blade holder to a handle.

32. (previously submitted) The cartridge of claim 31 wherein the proximal end of the blade holder defines a beam with a pocket formed therein for engagement with a handle.

33. (previously submitted) The cartridge of claim 32 wherein the blade holder includes a medial portion defining a recess therein for engagement with a handle.



34. (previously submitted) The cartridge of claim 30 further including a latch that positively holds the shield in the distal position.
35. (previously submitted) The cartridge of claim 34 wherein the latch is a cantilever on the shield.
36. (previously submitted) The cartridge of claim 34 wherein the blade holder includes a sidewall that defines at least one substantially longitudinally extending groove.
37. (previously submitted) The cartridge of claim 36 wherein the groove includes a distal end with an upturned stop portion.
38. (previously submitted) The cartridge of claim 35 wherein the blade holder includes a sidewall that defines at least one substantially longitudinally extending groove and the cantilever includes an inward projection disposed in the groove.
39. (cancelled)
40. (previously submitted) The cartridge of claim 39 wherein the blade holder includes a seat and the shield includes a tab with an inwardly projecting lug disposed in the seat when the shield is in the distal position.
41. (previously submitted) The cartridge of claim 30 further including a means to prevent dismounting the cartridge from a handle unless the shield is in the distal position.
42. (previously submitted) The cartridge of claim 41 wherein the shield defines a proximal portion that substantially surrounds the proximal end of the blade holder.
43. (previously submitted) The cartridge of claim 32 wherein the shield defines a proximal portion that substantially surrounds the beam when the shield is in the proximal position.

44. (previously submitted) The cartridge of claim 30 wherein the shield includes at least one finger placement surface with a discrete surface configuration that facilitates gripping of the shield by a clinician.

45. A cartridge that may be mounted on a handle to form a scalpel, comprising:  
a blade holder with a proximal end and a distal end;  
a blade attached to said blade holder;  
a shield slidably mounted on said blade holder for movement between a distal position shielding the blade and a proximal position exposing the blade for use; and  
a means for releasably mounting said blade holder to a handle[.]; and  
means to prevent dismounting the blade holder from a handle unless the shield is in the distal position.

46. (previously submitted) The cartridge of claim 45 wherein the proximal end of the blade holder defines a beam with a pocket formed therein for engagement with a handle.

47. (previously submitted) The cartridge of claim 46 wherein the blade holder includes a medial portion defining a recess therein for engagement with a handle.

48. (previously submitted) The cartridge of claim 45 further including means that substantially prevents dismounting of the cartridge from a handle unless the shield is in the distal position.

49. (previously submitted) The cartridge of claim 45 wherein the shield defines a proximal portion that substantially surrounds the beam when the shield is in the proximal position.

50. (previously submitted) The cartridge of claim 45 wherein the shield includes at least one finger placement surface with a discrete surface configuration that facilitates gripping of the shield by a clinician.

51. (previously submitted) A cartridge that may be releasably mounted on a handle to form a scalpel, comprising:

a blade holder with a proximal end and a distal end;

a blade attached to said blade holder;

a shield slidably mounted on said blade holder so as to be movable between a distal position substantially surrounding the blade and a proximal position exposing the blade for use; and

a latch that substantially prevents proximal movement of the shield with respect to the blade holder unless the cartridge is mounted to a handle.

52. (previously submitted) The cartridge of claim 51 wherein the blade holder includes a seat and the shield includes a tab with an inwardly projecting lug disposed in the seat when the shield is in the distal position.

53. (previously submitted) The cartridge of claim 51 wherein the shield includes at least one finger placement surface with a discrete surface configuration that facilitates gripping of the shield by a clinician.

54. (amended) A surgical scalpel, comprising:

a handle defined by a pair of sidewalls having at least one external surface and having a proximal portion adapted to be gripped by a clinician during use and a distal portion wherein at least one sidewall includes a groove formed in the external surface and extending substantially longitudinally along the distal portion of the handle;

a blade attached to the handle adjacent to the distal portion of the handle;

a shield slidably mounted to the handle along the distal portion of the handle so as to be movable between a distal position shielding the blade and a proximal position exposing the blade for use without enclosing the proximal portion of the handle; and

a latch associated with the shield and having an inward projection disposed in the groove to releasably hold the shield in the distal position and the proximal position.

55. (previously submitted) The surgical scalpel of claim 54 wherein the groove includes an upturned proximal end and an upturned distal end and the latch is cantilevered to be biased upwardly.

56. (previously submitted) The surgical scalpel of claim 55 wherein the latch snaps into the upturned proximal end of the groove to indicate that the shield is locked in the proximal position and the latch snaps into the upturned distal end of the groove to indicate that the shield is locked in the distal position.

57. (previously submitted) The surgical scalpel of claim 54 wherein the shield includes at least one finger placement surface with a discrete surface configuration that facilitates gripping of the shield by a clinician.

58. (previously submitted) The surgical scalpel of claim 54 wherein the distal portion of the handle defines a top cut-away portion extending along the length of the groove to facilitate movement of the latch.

59. (previously submitted) The surgical scalpel of claim 58 wherein the top cut-away portion extends between two end portions having a raised upper surface.

60. (previously submitted) The surgical scalpel of claim 54 wherein the shield includes at least one inwardly projecting rail and the handle includes at least one slot formed in the external surface and extending substantially along the distal portion of the handle such that the inwardly projecting rail is disposed in the slot to facilitate movement of the shield between the distal position and the proximal position.

61. (previously submitted) The surgical scalpel of claim 54 wherein the shield covers a proximal portion of the blade when the shield is in the proximal position exposing the blade for use.

62. (amended) A handle that may be mounted on a cartridge to form a scalpel, comprising:

- a proximal hand gripping portion having a distal end;
- an intermediate shank having a proximal end and a distal end connected at its proximal end to the distal end of the proximal hand gripping portion;
- a tang extending from a distal end of the intermediate shank adapted to be directly engaged to a scalpel blade; and
- a means for releasably connecting the handle to a cartridge.

63. (previously submitted) The handle of claim 62 [further comprising] wherein the a means for releasably connecting the handle to a cartridge comprises a downwardly extending projection formed in the intermediate shank.

64. (previously submitted) The handle of claim 62 wherein the intermediate shank includes an outer surface defining a substantially longitudinally extending groove.

65. (previously submitted) The handle of claim 64 wherein the groove includes an upturned portion.

66. (previously submitted) The handle of claim 62 wherein the tang defines a recess disposed therein.

67. (previously submitted) A surgical scalpel, comprising:

- a handle having a proximal hand gripping portion having a distal end, an intermediate shank having a proximal end and a distal end connected at its proximal end to the distal end of the proximal hand gripping portion wherein the intermediate shank defines a substantially longitudinally extending groove therein, and a tang extending from a distal end of the intermediate shank;

- a cartridge releasably mounted on the handle to form a scalpel including a blade holder with a proximal end and a distal end and

a blade attached to said blade holder wherein the blade holder defines a substantially longitudinally extending groove therein aligned with the groove formed in the intermediate shank; and

a shield slidably mounted about the cartridge so as to be movable between a distal position shielding the blade and a proximal position exposing the blade for use and having a latch associated with the shield and having an inward projection disposed in the groove to releasably hold the shield in the distal position and the proximal position.

68. (previously submitted) The surgical scalpel of claim 67 wherein the blade holder defines a beam with a pocket formed therein for engagement with the handle.

69. (previously submitted) The surgical scalpel of claim 68 further including a projection extending downwardly from the intermediate shank for engagement with the pocket formed in the beam.

70. (previously submitted) The surgical scalpel of claim 68 wherein the shield defines a proximal portion that substantially surrounds the beam when the shield is in the proximal position.

71. (previously submitted) The surgical scalpel of claim 67 wherein the groove includes an upturned proximal end and an upturned distal end and the latch is cantilevered to be biased upwardly.

72. (previously submitted) The surgical scalpel of claim 71 wherein the latch snaps into the upturned proximal end of the groove to indicate that the shield is locked in the proximal position and the latch snaps into the upturned distal end of the groove to indicate that the shield is locked in the distal position.

73. (previously submitted) The surgical scalpel of claim 67 wherein the shield includes at least one finger placement surface with a discrete surface configuration that facilitates gripping of the shield by a clinician.

74. (previously submitted) The surgical scalpel of claim 67 wherein the distal portion of the handle defines a top cut-away portion extending along the length of the groove to facilitate movement of the latch.

75. (previously submitted) The surgical scalpel of claim 74 wherein the top cut-away portion extends between two end portions having a raised upper surface.

76. (previously submitted) The surgical scalpel of claim 67 wherein the shield includes at least one inwardly projecting rail and the handle includes at least one slot formed in the external surface and extending substantially along the distal portion of the handle such that the inwardly projecting rail is disposed in the slot to facilitate movement of the shield between the distal position and the proximal position.

77. (previously submitted) The surgical scalpel of claim 67 wherein the shield covers a proximal portion of the blade when the shield is in the proximal position exposing the blade for use.

78. (newly presented) A cartridge that may be mounted on a handle to form a scalpel, comprising:

- a blade holder with a proximal end, a distal end and an external surface;
- a blade attached to said blade holder;
- a shield slidably mounted about said blade holder so as to be disposed about the external surface of the blade holder wherein the shield is movable between a distal position shielding the blade and a proximal position exposing the blade for use; and
- means to prevent dismounting the cartridge from a handle unless the shield is in the distal position.

79. (newly presented) A scalpel comprising:

- a handle; and
- a cartridge selectively attached to the handle and including:

a shield; and

a blade operably connected to the shield for relative sliding movement such that the shield is movable between a distal position shielding the blade and a proximal position exposing the blade for use and proximal movement of the shield with respect to the blade is prevented unless the cartridge is mounted to the handle.

80. (newly presented) The scalpel of claim 79 further comprising means for releasably connecting the handle to a cartridge and wherein the handle comprises:

a proximal hand gripping portion having a distal end;

an intermediate shank having a proximal end and a distal end connected at its proximal end to the distal end of the proximal hand gripping portion; and

a tang extending from a distal end of the intermediate shank adapted to be directly engaged to the blade.

81. (newly presented) The scalpel of claim 79 wherein the handle defines a groove and wherein at least a portion of the shield is disposed in the groove when the shield is in the proximal position.

82. (newly presented). The scalpel of claim 79 further comprising a blade holder, wherein the blade is operably connected to the shield by the blade holder.

83. (newly presented) A scalpel comprising:

a handle; and

a cartridge selectively mounted to the handle, the cartridge comprising:

a shield; and

a blade operably connected to the shield for relative sliding movement such that the shield is movable between a distal position shielding the blade and a proximal position exposing the blade for use;

wherein the cartridge is lockingly engaged to the handle unless the shield is in the distal position.



84. (newly presented) The scalpel of claim 83 wherein proximal movement of the shield with respect to the blade is prevented unless the cartridge is mounted to the handle.

85. (newly presented) The scalpel of claim 84 further comprising means for releasably connecting the handle to a cartridge and wherein the handle comprises:

- a proximal hand gripping portion having a distal end;

- an intermediate shank having a proximal end and a distal end connected at its proximal end to the distal end of the proximal hand gripping portion; and

- a tang extending from a distal end of the intermediate shank adapted to be directly engaged to the blade.

86. (newly presented) The scalpel of claim 83 wherein the handle defines a groove and wherein at least a portion of the shield is disposed in the groove when the shield is in the proximal position.

87. (newly presented). The scalpel of claim 83 further comprising a blade holder, herein the blade is operably connected to the shield by the blade holder.